



Inexpensive handheld tests for diseases are in sight

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Diagnosing diseases will be easier than ever through the technology and initiative of Los Alamos scientists

Los Alamos scientist Dr. Hong Cai has a passion: to use her expertise in biochemistry and genetics to create a non-invasive, point-of-care diagnostic device for disease detection. In following her passion, she and her colleague, Dr. Robert Cary at Bioscience Division, invented a suite of technologies for this application, generically called the “DNA dipstick.” DNA diagnostic testing has diverse applications in diverse markets including healthcare, agriculture, food safety, and forensics.

In 2009, Drs. Cai and Cary left Los Alamos to found Mesa Tech International, Inc. (Mesa Tech). This Santa Fe, NM-based biotechnology startup is developing a prototype

that will initially target the global diseases surveillance market, but intends to optimize the technology for use in point-of-care diagnostics, particularly in resource-poor areas of the world.

Mesa Tech's goal is to market inexpensive, small, disposable, handheld tests that is capable of diagnose multiple diseases based on the disease-specific nucleic acid molecular markers.

Mesa Tech has financed its product development efforts using grants from the American Recovery and Reinvestment Act, the National Institutes of Health, USDA, California Citrus Research Board, and the Bill & Melinda Gates Foundation. Once a prototype device has been validated by independent laboratories, Mesa Tech intends to seek private investment to supplement its grant funding.

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